1.0 INTRODUCTION

Part 2 of the Indiana Dam Safety Inspection Manual presents guidelines for preparing an Management and Maintenance (M&M) Plan for a dam, and includes typical procedures for operating and maintaining a dam and its appurtenant works.

Chapter 2 (Part 2) describes the elements that should be contained in a complete M&M Plan. The purpose of preparing and implementing a dam M&M Plan is to provide the greatest possible assurance of the safety of the dam and continuous operation of the reservoir. An effective plan provides all the information and instructions needed to allow an inexperienced person to perform the actions required to operate the dam safely. The items addressed in the plan should include pertinent background data, operation of appurtenant structures, periodic inspection of the dam, monitoring the dam's performance, recording and interpreting the results of the inspection and monitoring, and performance of all required maintenance. The M&M Plan should not include the detailed procedures for performing dam inspections, monitoring, and maintenance, but rather, should include instructions, forms, and schedules for implementing the detailed procedures. Assembling the required information and writing a site-specific M&M Plan is the responsibility of the dam owner/operator.

Chapters 3 and 4 of this Part describe the typical Management and Maintenance procedures that may be implemented as part of the plan. Part 3 of the Indiana Dam Safety Inspection Manual covers detailed inspection procedures that may be followed as part of the M&M Plan.

A well prepared M&M Plan can help the dam owner:

- assure the safety of the dam and continuous operation of the reservoir,
- minimize legal and financial liability,
- avoid the waste of stored water by having it under control at all times,
- minimize the need for costly repairs, and
- extend the useful life of the structure.

Dam inspection and maintenance are two key components of the M&M Plan. In most cases, dam failure can be prevented if the structures are properly maintained. Dams are man-made structures which must be designed, inspected, operated, and maintained. Maintenance is an ongoing process that not only involves such routine items as mowing the grass and clearing the trash rack, but also includes regularly inspecting the structure and properly operating its components. It is usually more cost effective to implement maintenance repairs than it is to repair a dam after failure of a critical feature (i.e., embankment, spillway). Major rehabilitation of a dam should not be necessary if the dam was designed in accordance with good engineering practice, was built using good construction standards, and is operated and maintained properly.